

# SE 1261X

## Flexible Epoxy Underfill & Encapsulant

Typical Properties			
Property	Unit	Value	Test Method
Color of Component		Blue	Visual
Density	Gram /cc	1.1	ASTM D792
Viscosity at 25°C	cps	4,000	ASTM D2196
Property as Cured			
Color		Blue	Visual
Hardness	Shore A	25	ASTM D2240
Tensile Strength	Mpa	2.2	ASTM D638
Elongation	%	130	ASTM D638
Dielectric Constant	@1000Hz	4.0	ASTM D150
Dielectric Strength	Volt/mil AC	> 400	ASTM D149
Volume Resistivity (@24°C)	Ohm-cm	> 10E+13	ASTM D257
Coefficient of Thermal Expansion	ppm/°C	140	IPC-TM-650
Adhesion (Al/Al lap shear)	Psi	> 200	ASTM D1002
Temperature Usage	°C	-80 to 160	TGA
Cure Profile			
Cure at 125°C	min	30	Durometer
Cure at 150°C	min	15	Durometer
Pot / Work Life at 25°C (after warmed up)	hr	48	Viscosity double

These figures are only intended as a guide and should not be used in preparing specifications.

### Characteristics

SE 1261X is a soft and flexible epoxy adhesive for under-filling or encapsulating electronic components such as BGA, chip-on-board, bare die, CSP etc. It is a one-part, capillary flow formulation that cures at elevated temperature to form "gel-like" soft epoxy providing protection of electronic components with significantly reduced thermal stress. SE 1261X is dispensable. For better flow, it is recommended to pre-warm the applied spot to ~ 105°C.

### Special Features and Benefits

- Softness and flexibility for stress free
- Fast flow and capillary flow
- Bonding to various substrates
- Low bleeding, low volatile

### Typical Applications

- Under-filling BGA, Bare die, flip-chip, CSP
- Encapsulate parts, cavities
- Bonding of die to LTCC, Al, Cu
- Attach PCBs, base plates, components
- Seal lids, covers, housings, connectors
- Vibration dampening
- Thermal stress coupling
- Aerospace & Automotive electronics
- Semiconductor & Telecommunications

SE 1261X has a shelf life of at least 3 months when stored in freezer (-40°C) in the originally sealed container.

### Processing Instruction

The adhesive is a pre-mixed adhesive as one part for easier applying. In order to keep longer usage life, please always store the original or left material in freezer (-40°C). For some applications, it is recommended to warm the applied surface to ~ 105°C, and/or the adhesive to about 50°C, to promote faster capillary flow.

We recommend running preliminary tests to optimize conditions for the particular application. Comprehensive processing instructions can be obtained by contacting directly to United Adhesives, Inc.

SE 1261X has a shelf life of at least 3 months when stored in freezer (-40°C) in the originally sealed container. The 'Best use before end' date of each batch appears on the product label. Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

### Safety information

General hygiene regulations should be observed. Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from United Adhesives, Inc.

The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose. For technical, quality, or product safety questions, please contact directly to United Adhesives Inc.